P-3 Orion 04/26/17

Aircraft:
P-3 Orion (See full schedule)
Flight Number:
Science Flight #29-Devon-Bylot (Medium Priority)
Payload Configuration:
OIB Arctic
Nav Data Collected:
No
Total Flight Time:
7.9 hours
Submitted by:
Cate Easmunt on 04/26/17
Flight Segments:

From:	BGSF	**To:**	BGSF
Start:	04/26/17 10:23 Z	**Finish:**	04/26/17 18:17 Z
Flight Time:	7.9 hours		
Log Number:	17P006	**PI:**	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	17P006
Flight Hours Approved in SOFRS	333.6
Total Used	299.1
Total Remaining	34.5

17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
02/24/17	Airworthiness Test Flight	Check	1	1	332.6
02/26/17	Project Test Flight #1	Check	4.9	5.9	327.7
02/27/17	Project Test Flight #2	Check	3	8.9	324.7
03/07/17	Transit Flight	Transit	8.2	17.1	316.5
03/09/17	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5
03/10/17	Science Flight #2 - Laxon Line	Science	8.5	33.6	300
03/11/17 - 03/12/17	Science Flight #3 - Chukchi West Line	Science	8	41.6	292
03/12/17 - 03/13/17	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9
03/14/17 - 03/15/17	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9
03/20/17	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8
03/22/17	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9
03/23/17	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252
03/24/17	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2
03/27/17	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8
03/28/17	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2
03/29/17	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6
03/30/17	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7

03/31/17	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
04/03/17	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
04/05/17	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
04/06/17	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
04/07/17	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
04/10/17	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
04/11/17	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
04/12/17	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2
04/13/17	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
04/14/17	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
04/17/17	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
04/19/17	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
04/20/17	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
04/21/17	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
04/22/17	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
04/24/17	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
04/26/17	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
04/28/17	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
04/29/17	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
05/01/17	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
05/02/17	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
05/03/17	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
05/05/17	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
05/06/17	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - P-3 Orion 04/26/17 Science Report

Mission:
OIB
Mission Summary:

Mission: Devon-Bylot (priority: medium)

This mission repeats survey lines over the Devon Ice Cap previously surveyed by the ATM/KU teams in 1995, 2000, and 2005. We also fly the East and West channels of the Belcher Glacier, draining the northeastern Devon Ice Cap. As originally planned, this mission also covered the Barnes Ice Cap on Baffin Island and was to be flown from Thule, but Barnes was covered in cloud today. We replaced the Barnes lines with repeats of four glacier centerlines on Canada's Bylot Island, which were last flown in 2011.

The series of storms covering the Davis Strait, southern Baffin Bay and Baffin Island, and all of southern Greenland persisted today, and indeed are not expected to begin clearing until sometime Friday. This eliminated all of our normal Kangerlussuaq science targets from consideration, leaving us to address what we could reach in clear areas to the north, which included Bylot and Devon Islands. In addition, we also collected data over sea ice in Baffin Bay, and in the channels between Bylot, Baffin, and Ellesmere Islands where conditions allowed.

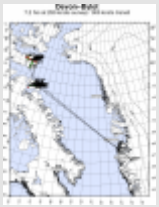
All instruments performed well. MCoRDS experienced a cabling issue which resulted in degraded performance on one of the 15 channels of the radar. The issue was repaired during the flight today.

Data volumes:
Accumulation Radar: 1.0 Tb
ATM: 75 Gb
CAMBOT: 33 Gb
DMS: 59 Gb
FLIR: 12 Gb
KT19: 10 Mb
MCoRDS: 873 Gb
Narrow Swath ATM: 20 Gb
Snow Radar: 908 Gb

total data collection time: 3.8 hrs

Images:

Map of Devon-Bylot



Map of today's mission.

Read more

Fast ice edge

Sea ice lead in Baffin Bay, a few miles off Bylot Island. This appears to be the edge of Bylot's shore-fast ice.

Read more

Coast of Bylot Island

The coast of Arctic Canada's Bylot Island, with a very thin stratus cloud at roughly our altitude.

Read more

Belcher Glacier

The calving front of Devon Island's Belcher Glacier, viewed through our flight station's windscreen as we approached for a centerline mapping run up the glacier.

Read more

Submitted by:
John Sonntag on 04/26/17

Source URL: https://airbornescience.nasa.gov/flight_reports/P-3_Orion_04_26_17